THE CAROLINA CHEMIST

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FACULTY AND CLASS REPRESENTATIVES

DR. J. M. BELL, Faculty
O. K. MERRITT, Senior — I. V. GILES, Junior
J. S. MURRAY, Sophomore — F. B. HERTY, Freshman

In sincere appreciation
of his eleven years of splendid service
as Professor of Chemistry in our department
we dedicate this number of
THE CAROLINA CHEMIST
to our
teacher and friend
DR. CHARLES HOLMES HERTY

The Kansan Chemallurgist, the first issue of which appeared in May, 1916, has recently come to our desk. It is devoted to the interests of Chemistry at the University of Kansas. Dr. C. H. Herty is one of the contributors to the first issue.

The students of the department are taking a renewed interest in our Chemical Journal Club. There has been a large attendance at every meeting this fall, and much good has resulted. Some of the alumni remember how they once avoided the laboratory to

keep from being put "on" the Journal Club. The sentiment is gradually growing against such practice and in a short while every man is going to do his part gladly.

The department and the University sincerely regret that Dr. Herty must leave us. He has been here eleven years. In this time he has greatly strengthened the department and rendered great service to the University. His leaving is a great loss to us, and, we dare say, his students feel this as keenly as any one. He has always been intensely and enthusiastically interested in their work and activities, and has always had their affection. No one regrets his leaving more than do his students, and he will always have their good wishes.

A WORD IN PARTING

The request of the editor for a word in parting gives pause, for type is cold and there are many thoughts and feelings to which I would like to give expression; but the printed column chills. Our department, however, has always been a very intimate mixture of those who are and those who have been in Chemistry Hall; and so a word in parting should be given here in order to reach all to whom I wish to tell how deeply I am in their debt for the happiness of the past eleven years.

The source of this happiness is not far to seek. "The Spirit of the Department" on the cover page of THE CAROLINA CHEMIST is no idle boast or meaningless phrase.

It tells the story of a group of young and somewhat older men joined closely together in the bonds of earnest work and serious purpose, in an atmosphere of light-hearted pleasantry, where decorum needs no formal definition, but is based upon mutual respect and good-will.

It testifies always to a fine self-reliance in work and a common hope of adding something to the store of Truth through chemistry.

It carries with it a sense of personal ownership in and responsibility for the building in which the department is housed and the material things with which it is equipped.

It represents the unification of staff, alumni, and students.

In the clear light of these meanings, it is small wonder that the seeming breaking of these ties is accompanied by the gravest misgivings. The daily intercourse in the laboratory will surely be missed; so, too, the delicious combats of the oral quizzes; but most of all, the steady marking of development of young men in whose hands the future lies.

It must not be a parting. I shall simply join the ranks of the alumni and share with them the abiding love for and faith in "The Spirit of the Department" here on the Hill.

CHAS. H. HERTY.

DR. CHARLES H. HERTY TENDERS RESIGNATION

The resignation of Prof. Charles Holmes Herty as head of the Chemistry Department of the University of North Carolina, to take effect December 1, will be regretted greatly by students and alumni alike. Dr. Herty will become editor of the *Journal of Industrial and Engineering Chemistry,* New York, upon the resignation of Prof. M. H. Whitaker, of Columbia University, the present editor. This is one of the leading chemical journals of the country, and as its editor Dr. Herty will have an opportunity to do much constructive work in his chosen field. All of his time will be devoted to editorial work, hence the necessity for his resignation as professor of chemistry here. He is to receive a salary of $6,000 a year.

Professor Herty has been at the University of North Carolina for eleven years, having come here in the fall of 1905. He was formerly professor at the University of Georgia, and was for two years with the Forestry Division of the United States Department of Agriculture. He received his Ph.D. degree from the University of Johns Hopkins, and has devoted considerable time to chemical research and study in the laboratories and universities of Germany and Switzerland. As head of the University Department of Chemistry he has built it up and added to its facilities until it is the equal of any in the South. This year the department has been taxed to accommodate all the men who wish to pursue chemistry studies.

But it is not merely as a professor in the University that Dr. Herty has distinguished himself. He has long been known as one of the leading industrial chemists in the country. The Herty cup

for collecting turpentine, invented by him, has alone saved the South $13,000,000 annually, according to a statement in *World's Work*. He has made of the chemical laboratory here a clearing house of chemical problems affecting the industrial development of the South, and has carried on extensive experiments in resin-making, rare earth investigations, the study of dyestuffs, and in certain other highly important fields.

The election of Professor Herty two years ago to the head of the American Chemical Society, an organization including in its membership 8,200 of the country's foremost chemists, came as a well-merited honor. His administration has been one of unprecedented activity. His special training enabled him to render most effective service at a highly critical time in the Nation's affairs, chemically speaking. His efforts in behalf of a tariff on dyestuffs and his general interest in building up a dyestuff industry has won him praise and renown from all quarters. In this position he has also been foremost in many other chemical developments, such as plants for extracting nitrogen from the air.—*The Tar Heel.*

NEW INSTRUCTOR IN CHEMISTRY

V. A. Coulter, Ph.D., '16, came back with us November 1 as instructor in chemistry. As a student in the University Dr. Coulter made an enviable record and is welcomed back as a valuable addition to the teaching force. He will teach analytical and industrial chemistry, including the following courses: Chemistry 11-12, 33, 44, and 45-46.

HISTORY OF CHEMISTRY AT CAROLINA

(Concluded from last issue.)

DR. F. P. VENABLE.

As has been already stated, the work in chemistry was, at first, divided between the basement of the old library (now the Law Building) and Person Hall (now occupied by the Pharmacy Department). In 1885 an addition of seventy feet was made to the rear of Person Hall and the work concentrated there. This change was a great improvement and made it possible to add to the work of the department and to its teaching force, Dr. William

B. Phillips being added as professor. The withdrawal of part of the State's appropriation a year or so later necessitated the giving up of this additional professorship and the withdrawal of Dr. Phillips. In 1890 a further addition was made to the building, duplicating the front section and bringing the building to its present form of an H. The total floor space was 12,000 square feet and there were in all ten rooms, and at that time it was one of the most commodious chemical laboratories in the South, the rooms being well lighted, ventilated, and conveniently arranged.

The demand for more room to accommodate the increasingly large classes led to the erection of the present building in 1904. This was the first building erected on the campus by direct State appropriation in the 110 years of the University's existence. After twelve years of service there are many indications that further accommodations must be provided. As the building was erected with that in view, the additions can be made at reasonable cost. The present building has three stories in use. The floor space is 20,000 square feet and there are thirty-six rooms, including three lecture rooms, a library, three store rooms, and nineteen laboratories, besides offices, balance rooms, etc.

In 1900, after twenty years as head of the department, I had to give up that side of the work when I undertook the executive work of the University. I retained some small part of the teaching, however, throughout the subsequent years, as I was unwilling to give up altogether that which had been my life-work. Dr. Charles Baskerville became head of the department with a total force of four professors and assistants. On his leaving the University to take up the work at the College of the City of New York, Dr. Charles H. Herty came from his work among the Florida pines and took charge of the department. Under his leadership it has grown to four professors, one instructor, and eight assistants, and every portion of the building is filled with a busy crowd of students.

One of the marked characteristics of the work in the Department of Chemistry at the University of North Carolina has been the encouragement of research. This was begun when equipment and accommodations were exceedingly poor. Often the difficulties were great and inadequacy of supplies discouraging. Sometimes the results were small, but always the effort was to make some

contribution, however small, and scarcely a year passed in which one or more investigations were not carried out. The total number published since 1881 amount to approximately 200.

DOINGS OF THE FACULTY

Dr. Herty spent the summer in Camden, Maine. He varied his vacation by trips to New York, Boston, and Washington in the interest of the Second National Exposition of Chemical Industries which was held in New York late in September. His work as chairman of the advisory committee helped much in the success of the exposition.

Dr. Herty's presidential address, "The Expanding Relations of Chemistry in America," was a feature of the September meeting of the American Chemical Society.

Dr. Venable was in Asheville during the summer enjoying the mountain breezes.

Dr. Wheeler taught in the summer school. During August he was in the mountains of Western North Carolina, around Blowing Rock and Grandfather Mountain. He attended the Exposition of Chemical Industries and the meeting of the American Chemical Society.

Dr. Bell taught in the summer school and looked after the building of a handsome home on Rosemary Street.

DEPARTMENT JOTTINGS

More students than ever are taking Chemistry this year. Every available laboratory is occupied despite the fact that we have more accessible space because of a transfer of Biological Chemistry to the Medical Building. We have twenty embryo chemists in the Freshman class and the department ranks next to the Department of Economics in the number of graduate students, there being six engaged in advanced work.

Something new in the department this year is a whole-time storeroom keeper. And, stranger still, this officiating person is a lady. Miss Bertha Pickard is in charge.

The old method of checking absences in Chemistry 1-2 has been discarded. No longer do the students write their name on a slip of paper and drop it in a box. We now use a board 4 feet long

and 18 inches wide with numbers on it from 1 to 300. A nail is driven in each number. The student passes by a box of iron washers, picks up one, and hangs it on his number.

RESEARCH

Dr. Venable and Dr. Bell are still working on the determination of the atomic weight of zirconium. They will soon be ready to publish a report of their work.

Dr. Wheeler is beginning an investigation of tautomerism in the napthaline series.

T. M. Andrews is working on para-brom-phenyl-semicarbazine; C. B. Hoke, on phenyl-semicarbazine and its derivatives; J. W. Scott, on hardwood tar; and H. L. Crooke, on para-brom-benzine.

The work of the seniors is as follows: Horsfield, on potassium arsenate; Merritt, on hydrates of zirconium chloride; Sparger, on oxidation of organic acids; Isley, on tri-chlor-acetic acid; Tennent, on zirconium chloride; and Ingram, on action of ketones and alcohols on calcium carbide at high temperatures.

THE CHEMICAL POTENTIALITIES OF THE SOUTH

On September 14 the *Manufacturers' Record* of Baltimore published a special issue of one hundred and ninety-five pages, devoted specifically to one subject now uppermost in public consciousness, "The Chemical Potentialities of the South." An extraordinarily conspicuous position in this issue was occupied by representatives of this University. The second article was by Dr. C. H. Herty, president of the American Chemical Society, on "The Rôle of Chemistry in the Industrial Development of the South." The sixth article was by Dr. F. P. Venable, ex-president of the American Chemical Society, on "What the Chemist Means to Manufacturers. The Mistake Individually and Nationally of Low Pay for Chemists." The fourteenth article was by Dr. J. H. Pratt, State Geologist of North Carolina, on "Utilizing Our Raw Materials at Home." Mention may also be made of another article, "The Development of Chemical Industries in the South and Southwest," by President W. B. Phillips of the Colorado School of Mines, a native of Chapel Hill and a graduate of the University

of North Carolina (1877), whence he received the Ph.D. degree in 1883.

Dr. Herty stressed three sides of chemistry, qualitative, quantitative, and research; and urgently recommended the adequate endowment of coöperative research laboratories in the South for the development of organized industries and for the creation of industries now only in their infancy.

Dr. Venable dwelt upon the growing need for the proper equipment of chemists who are to enter the industrial field, and the folly of failing to compensate adequately the technical chemist thus properly equipped for industrial research.

"I am mailing you a copy of the special issue of the *Manufacturers' Record* entitled 'The Chemical Potentialities of the South.' This will be far and away the most influential publication ever issued in behalf of the development of the South, and this means the development of the Nation.

"I am sure it will interest you to know that one of the members of your faculty, Dr. Herty, is very largely responsible for whatever good may come out of this special issue. . . . I thought it would interest you to know that a member of your faculty had thus been instrumental in putting into effect influences that I believe will be worth untold millions to the South through making known its resources to the Nation and their stimulation of this section in the utilization of chemistry."—*Alumni Review.*

[EDITOR'S NOTE.—The latter part of this article is an extract from a letter to Dr. E. K. Graham, president of the University, from Richard H. Edmonds, editor of the *Manufacturers' Record.*]

JOURNAL CLUB NOTES

The Journal Club has had three interesting meetings this fall and there has been a splendid attendance at each one.

On October 2 Dr. Venable presided and the life and works of Sir William Ramsey were studied. Reports were presented by O. K. Merritt, H. L. Crooke, C. H. Herty, Jr., H. B. Ingram, and Dr. Venable.

On October 16 Dr. Wheeler presided, and we had a symposium of the September meeting of the American Chemical Society.

Reports were presented by Dr. Herty, R. W. Sparger, J. P. Sawyer, J. W. Scott, and T. M. Andrews.

On November 6 Dr. Bell presided, and we had a discussion of methods of analysis of oxygen, nitrites, aluminum, and tin by the following men, respectively: B. L. Meredith, L. G. Marsh, J. W. Smithey, and O. K. Merritt.

ALUMNI NOTES

Dr. Charles Baskerville gave a delightful luncheon at the Engineers' Club in New York to the Carolina alumni attending the Second National Chemical Exposition. The guests were George MacNider, Strowd Jordan, Reston Stevenson, W. A. Whitaker, R. O. E. Davis, J. E. Mills, and A. S. Wheeler.

C. B. Carter, Ph.D., '16, spent the months of June and July doing research work here. Early in August he went to the Mellon Institute, Pittsburg, Pa., as a Fellow in Industrial Research.

L. E. Stacy, M.A., '13, is chemist for the Smoot Tannery, North Wilkesboro, N. C. North Wilkesboro was one of the towns severely damaged by the July floods. While engaged in rescue work at this time, "Luke" had the disagreeable experience of being forced to spend a night on the roof of a house.

T. P. Nash, Jr., M.A., '11, is instructor in chemistry in the University of Tennessee Medical College. He was here for a few days in September.

O. A. Pickett, '16, is chemist for Southern Cotton Oil Company, Savannah, Ga.

J. P. Irwin. '05, is with the DuPont Company at Hopewell, Va. He has charge of the gun-cotton laboratory.

L. J. Farmer, '16, has given up chemistry for a business career in his home town, Wilson, N. C.

R. L. Hunter, '11, paid us a visit this fall. He is a member of the firm of the H. B. Hunter Company, Norfolk, Va., manufacturers of soda fountain requisites.

P. R. Bryan, '13, is now with the Aetna Chemical Company, McDonald, Pa. On September 12, 1916, he was married to Miss Margaret Buck of Pittsburg.

Dr. W. L. Jeffries is consulting chemist for the by-products division of E. I. DuPont de Nemours Company. He was on the "Hill" recently for a few days.

L. C. Hall, '16, is with the Hercules Powder Company. He has been located at Baltimore, Md., during the summer, but is now at San Diego, Cal.

W. N. Pritchard, Jr., '15, is with the DuPont Company at Wilmington, Del. He was in Chapel Hill for a week's vacation this fall.

T. B. Foust, '03, is at Cumberland Furnace, Tenn. In his foundry the long lost brass corner-stone plate of the Old East Building was recently found, and he returned it to the University.

V. C. Edwards, Ph.D. 15, was married June 8 to Miss Lillian Harley in Spartanburg, S. C. They were in Chapel Hill during the summer, Dr. Edwards doing research work in organic chemistry.

Cards reading as follows have been received: "Mr. and Mrs. Jackson Townsend announce the arrival of Jackson Townsend III, on November 18, 1916.

THE PROFESSOR AND THE STRANGER

A stranger once accidentally dropped into a chemical lecture-room and was astounded to hear the following from the lips of the Professor: "This is the way it is done: you take an ounce of carbolic acid and, after adding the proper amount of glycerine and soda, stir for about five minutes or until the solution is clear. Make up to the 400 mark on a liter flask with sterilized water and add solution B. The precipitate formed is then allowed to settle and the liquor decanted off from the sediment. Transfer the sediment finally to the filter by the aid of a policeman, wash well with water acidulated with carbolic acid and at last dry for several hours in a steam oven and weigh."

Stranger: "You don't catch me taking any carbolic acid; I know what that does to a fellow. And the idea of him telling a man to try to remedy the thing by adding glycerine and soda and then stirring around for five minutes or until everything gets clear. Gee whiz! I don't believe there's a man living who could take an ounce of carbolic acid and ever stir again. Then after going through that ordeal, if he ever does get over it, a man is expected to sidle up to the 400 who handle sterilized water and a mysterious solution B. (I wonder what it is?) Well, just as I thought,

trouble broke out, and it was finally settled by separating the scum from the so-called liquor element. And as a result of the whole affair, the policeman who was called in to settle the trouble got a little too much booze himself and had to be given a Turkish bath before he could again go on duty."—*The Chemist Analyst.*

"I want some consecrated lye," he slowly announced, as he entered the store. "You mean concentrated lye," suggested the druggist as he repressed a smile. "Maybe I do. It does nutmeg any difference. It's what I camphor, anyhow. What does it sulphur?" "Eighteen cents a can." "Then you can give me a can." "I never cinnamon who thought himself so witty as you do," said the druggist in a gingerly manner, feeling called upon to do a little punning himself. "Well, that's not bad ether," laughed the customer, with a syruptitious glance. "I ammonia novice at the business, though I've soda good many puns that other punsters reap the credit of. However, I don't care a copperas far as I am concerned, though they ought to be handled without cloves till they would not know what was the matter with them. Perhaps I shouldn't myrrh-myrrh. We have had a pleasant time, and I shall carraway." It was too much for the druggist. He collapsed.—*Chemical Trade Journal.*